

540,848

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
15 July 2004 (15.07.2004)

PCT

(10) International Publication Number
WO 2004/058823 A1

(51) International Patent Classification?: **C07K 16/18,**
16/34

(21) International Application Number:
PCT/KR2003/002860

(22) International Filing Date:
27 December 2003 (27.12.2003)

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data:
10-2002-0084834
27 December 2002 (27.12.2002) KR

(71) Applicant (for all designated States except US): **KOBIAS CO., LTD.** [KR/KR]; 52, Eoun-dong, Yuseong-gu, Daejeon 305-333 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **CHUNG, Tai-Wha** [KR/KR]; ShinDong-a APT. 12-1301, Yongjeon-dong, Dong-gu, Daejeon 300-766 (KR). **SONG, Eun-Young**

[KR/KR]; HanSung APT. C-1001, Yeouido-dong, YoungDeungpo-gu, Seoul 150-010 (KR). **KANG, Ji-Hyun** [KR/KR]; Honers Vill 1013 ho, 1380-1, Dunsan 1-dong, Seo-gu, Daejeon 302-121 (KR). **KIM, Ky-oung-A** [KR/KR]; Taejong Artvilla Ga-201, Birae-dong, Daedeok-gu, Daejeon 306-030 (KR). **LEE, Eun-Young** [KR/KR]; Artvilla 205 ho, 101-2, Eoun-dong, Yuseong-gu, Daejeon 305-333 (KR). **CHOE, Yong-Kyung** [KR/KR]; Hansoop APT. 103-1504, Yongjeon-dong, Dong-gu, Daejeon 300-768 (KR).

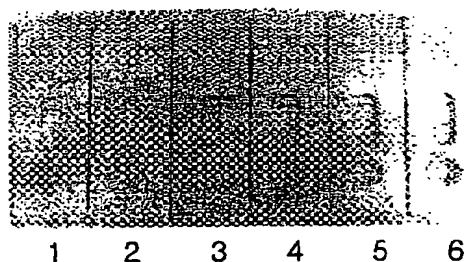
(74) Agent: **KIM, Won-Joon**; 305, Soohyub Bldg., 917, Dunsan-dong, Seo-gu, Daejeon 302-828 (KR).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),

[Continued on next page]

(54) Title: MONOCLONAL ANTIBODY AGAINST ASIALO ALPHA 1-ACID GLYCOPROTEIN, IMMUNOCHROMATOGRAPHIC STRIP COMPRISING THE MONOCLONAL ANTIBODY, AND METHOD FOR DIAGNOSING LIVER DISEASES USING THE IMMUNOCHROMATOGRAPHIC STRIP



- 1 : α_1 -acid glycoprotein + heptoglobin + α_2 -macroglobulin
2 : normal person
3 : 1.5 $\mu\text{g/ml}$
4 : 2.0 $\mu\text{g/ml}$
5 : 3.0 $\mu\text{g/ml}$
6 : 4.0 $\mu\text{g/ml}$

(57) Abstract: The present invention relates to a method for diagnosing a liver disease rapidly in an early stage. More particularly, the present invention relates to a monoclonal antibody against asialo α 1-acid glycoprotein; a method for diagnosing a liver disease which evaluates asialo α 1-acid glycoprotein in a test sample by using said monoclonal antibody; and a diagnostic strip for immunochromatography composed of said monoclonal antibody against asialo α 1-acid glycoprotein and Ricinus communis agglutinin (RCA). The diagnostic device of the present invention is convenient to measure the concentration of asialo α 1-acid glycoprotein and to diagnose a liver disease rapidly.

WO 2004/058823 A1



Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,
SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

— before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.